ABSTRACT of **WO2004017681**

An induction heating coil having little high-frequency loss and producing little hast is easily manufactured by covering a conductor with a first insulating material to form a wire, then bundling and twisting such wires to form a stranded wire, covering the outer surface of the stranded wire with a second insulating material to form a coil wire, winding the coil wire a certain number of turns into a coil portion having a certain shape. The end portion of the coil portion and a connecting portion are heated with Joule heat while applying pressure to the end portion at the same time, so that the first and second insulating materials are fused and pressure-bonded to the conductor. Thus a terminal portion for the external connection of the coil portion is fixed while keeping the electrical connection with the conductor. Accordingly, an induction heating coil of low cost and stable quality can be easily manufactured. The induction heating coil producing little heat because of its high-frequency loss and suitable for induction heating of a highly-conductive nonmagnetic substance such as aluminum.